



Machine Id
VOLVO EC160EL 310125
Component
Rear Right Final Drive
Fluid
VOLVO SUPER GEAR OIL 75W-80-GO102 (--- GAL)

RECOMMENDATION

We advise that you check for the source of water entry. We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. (Customer Sample Comment: 85w-140. Changed to GO102 75w-80)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ML0001449	VCP293406	---
Sample Date		Client Info		05 Apr 2024	24 Sep 2020	---
Machine Age	hrs	Client Info		2260	1019	---
Oil Age	hrs	Client Info		1000	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	N/A	---
Filter Changed		Client Info		N/A	N/A	---
Sample Status				SEVERE	NORMAL	---

WEAR

Gear wear is indicated.

Iron	ppm	ASTM D5185m	>500	▲ 855	310	---
Chromium	ppm	ASTM D5185m	>10	▲ 22	4	---
Nickel	ppm	ASTM D5185m	>10	3	0	---
Titanium	ppm	ASTM D5185m		8	0	---
Silver	ppm	ASTM D5185m		<1	<1	---
Aluminum	ppm	ASTM D5185m	>25	● 126	<1	---
Lead	ppm	ASTM D5185m	>25	2	0	---
Copper	ppm	ASTM D5185m	>50	2	<1	---
Tin	ppm	ASTM D5185m	>10	0	0	---
Vanadium	ppm	ASTM D5185m		1	0	---
White Metal	scalar	*Visual	NONE	NONE	LIGHT	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

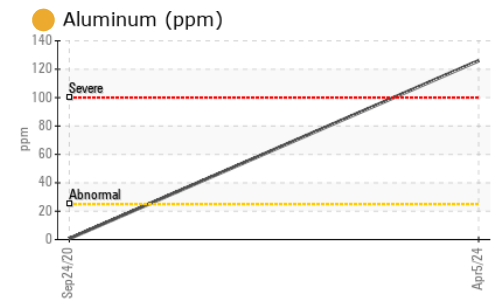
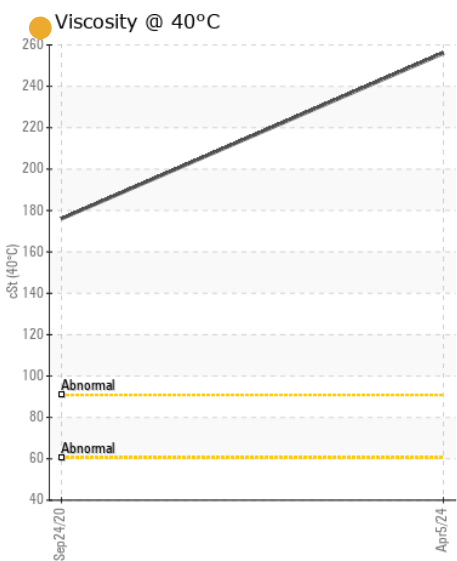
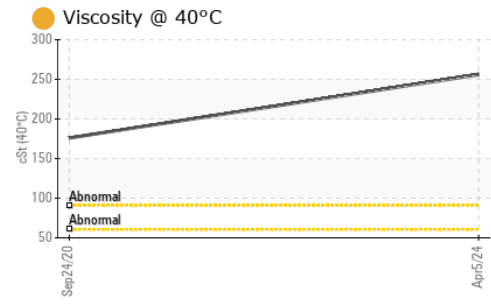
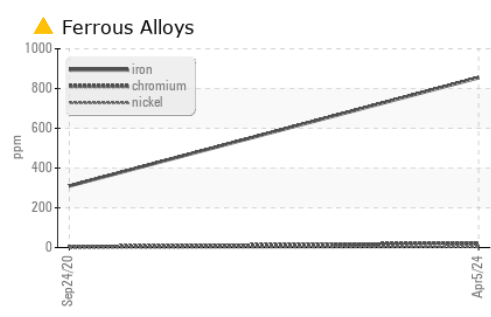
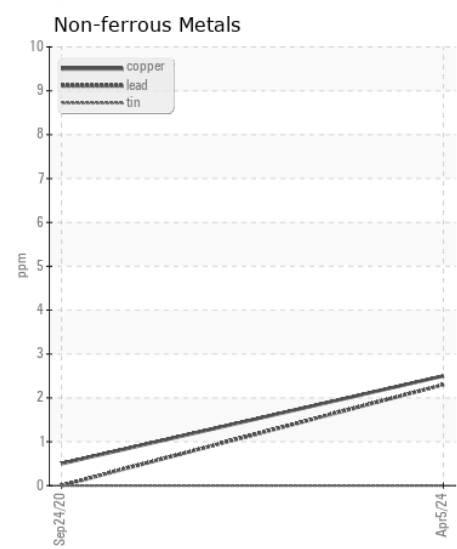
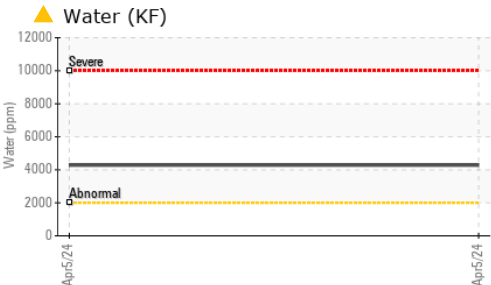
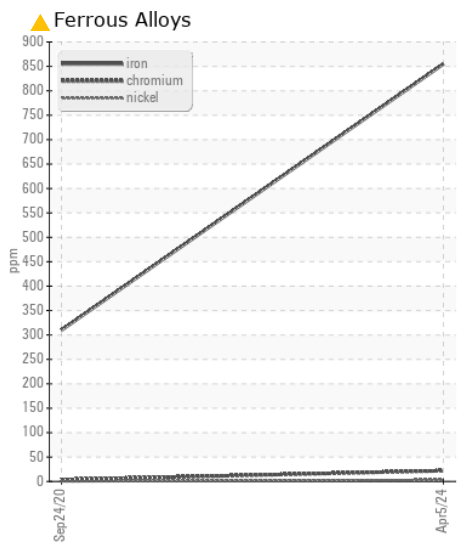
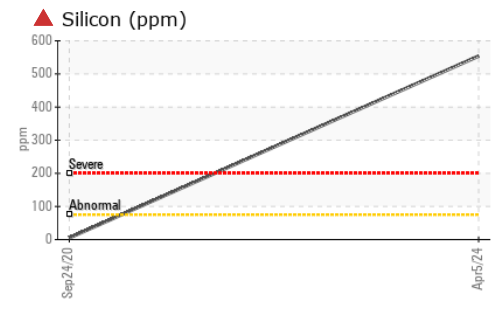
There is a moderate concentration of water present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>75	▲ 554	5	---
Potassium	ppm	ASTM D5185m	>20	51	2	---
Water	%	ASTM D6304	>0.2	▲ 0.428	---	---
ppm Water	ppm	ASTM D6304	>2000	▲ 4280	---	---
Silt	scalar	*Visual	NONE	MODER	NONE	---
Debris	scalar	*Visual	NONE	NONE	LIGHT	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	▲ 0.2%	NEG	---

FLUID CONDITION

The oil viscosity is higher than normal. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m		26	2	---
Boron	ppm	ASTM D5185m		100	14	---
Barium	ppm	ASTM D5185m		3	0	---
Molybdenum	ppm	ASTM D5185m		2	<1	---
Manganese	ppm	ASTM D5185m		12	3	---
Magnesium	ppm	ASTM D5185m		18	2	---
Calcium	ppm	ASTM D5185m		94	34	---
Phosphorus	ppm	ASTM D5185m		987	413	---
Zinc	ppm	ASTM D5185m		38	26	---
Sulfur	ppm	ASTM D5185m		37178	15793	---
Visc @ 40°C	cSt	ASTM D445		● 256	176	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ML0001449 **Received** : 16 Apr 2024
Lab Number : 06150729 **Tested** : 18 Apr 2024
Unique Number : 10980807 **Diagnosed** : 18 Apr 2024 - Don Baldrige
Test Package : CONST (Additional Tests: KF)

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Certificate L2367
 To discuss this sample report, contact Customer Service at 1-800-237-1369.
 * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)